

REMARKS

Applicants appreciate the detailed examination evidenced by the Office Action mailed November 10, 2005 (hereinafter "Office Action"). In response, Applicants have canceled Claims 1-7, 13, 14, 19-22 and 28-29 to reduce the issues under consideration. The cancellation of Claims 1-7 renders moot the §112 rejections of these claims, and amendments to Claim 12 overcome the §112 rejections of Claims 12-19. Applicants respectfully traverse the rejections of independent Claims 8 and 23, as the cited combination of U.S. Patent No. 6,920,116 to Hossain et al. (hereinafter "Hossain") and U.S. Patent No. 6,538,988 to Natarajan et al (hereinafter "Natarajan") does not disclose or suggest the recitations of Claim 8. Applicants have amended independent Claims 12 and 27 to include recitations from Claims 14 and 28, respectively, which are patentable for at least similar reasons to those supporting the patentability of independent Claims 8 and 23. Reasons supporting patentability of the claims are discussed in detail below.

Substitute Declaration

Applicants submit herewith a substitute Declaration, which corrects the defects noted in the Office Action.

Information Disclosure Statement

Also filed concurrently herewith is a Supplemental Information Disclosure Statement and Form PTO-1449. Applicants respectfully request consideration and acknowledgement of these references by the Examiner by initialing the Form PTO-1449 and returning a copy to Applicants.

The § 112 rejections are overcome

Claims 1-7 and 12-19 stand rejected under 35 U.S.C. § 112, second paragraph. The rejections of Claim 1-7 are moot in view of the cancellation of these claims. The rejections of Claims 12-19 are overcome by the amendment to Claim 12.

Independent Claims 8, 12, 23 and 27 are patentable

Independent Claim 8 and 23 stand rejected under 35 U.S.C. § 103 as being unpatentable over Hossain in view of Natarajan. See Office Action, p. 3. Claim 8 recites:

A method of configuring a Mobile Data Base Station (MDBS) of a Cellular Digital Packet Data (CDPD) communications system, the method comprising:
communicating a frame from a frame relay node of a backbone network of the CDPD communications to the MDBS to configure the MDBS to use the Data Link Connection Identifier (DLCI) in the frame as its frame relay address.

The Office Action states "Hossain et al. does not disclose a predetermined address included in the packet." Office Action, p.3. The Office Action cites Natarajan as teaching "a frame relay network 120 wherein frame transmitted between nodes comprises DLCI header identifying frames being transmitted using VC 140," and that it would have been obvious to combine Hossain and Natarajan "in order to include DLCI header in the frame relay message as a frame relay address." Office Action, p. 3.

Applicant respectfully disagrees. The cited passage from column 8 of Hossain describes transmitting a Network Service Entity Identifier (NSEI) from a Serving GPRS Support Node (SGSN) to a Base Station System (BSS) when a new Network Service Entity (NSE) becomes available at the BSS. In particular, the BSS sends the SGSN a NS-RESET message with a null NSEI field and, in response, the SGSN allocates a NSEI to the new NSE and sends the allocated NSEI to the BSS in a NSEID field in a NS-RESET-ACK message. This signaling occurs in a *Network Services* protocol layer that operates on top of a UDP and IP layers, which, in turn, operate on top of L1 and L2 layers (e.g., frame relay). Accordingly, as apparently conceded by the Office Action, Hossain does not deal with frame relay addressing.

Natarajan does not provide the missing teaching. The cited passage from column 8 states:

When the virtual circuit 140 is established in the frame relay network 120 between the first node 110 and the second node 130, it is assigned an associated unique data link connection identifier (DLCI). Frames which are transmitted using the frame relay network 120 include a header; the header includes the DLCI, thus identifying frames being transmitted using the associated virtual circuit 140.

This merely indicates that a DLCI identifies frames belonging to a particular virtual circuit, and does not deal with assigning an *address* to a device. Neither Hossain nor Natarajan discloses or suggests using "the Data Link Connection Identifier (DLCI) in the [received] frame *as its frame relay address*," as recited in independent Claim 8, or corresponding recitations of independent Claims 12, 23 and 27. For at least these reasons, Applicants submit that independent Claims 8, 12, 23 and 27 are patentable over the cited combination of Hossain and Natarajan.

The dependent claims are patentable

Applicants submit that dependent Claims 9-11, 15-18, 24-26 and 30-33 are patentable at least by virtue of the patentability of the various ones of independent Claims 8, 12, 23 and 27 from which they depend. Applicants further submit that several of the dependent claims are separately patentable.

For example, Claim 9 recites "wherein communicating a frame from a frame relay node of a backbone network of the CDPD communications system to the MDBS to configure the MDBS to use the Data Link Connection Identifier (DLCI) in the frame as its frame relay address comprises communicating a Local Management Interface (LMI) frame from the frame relay node to the MDBS." In rejecting Claim 9, the Office Action concedes that Hossain does not provide such teachings, and cites Natarajan as providing the missing teaching. Office Action, p. 4. However the first cited passage from Natarajan states:

When the virtual circuit 140 is established in the frame relay network 120 between the first node 110 and the second node 130, it is assigned an associated unique data link connection identifier (DLCI). Frames which are transmitted using the frame relay network 120 include a header; the header includes the DLCI, thus identifying frames being transmitted using the associated virtual circuit 140.

Natarajan, column 3, lines 5-15. The second cited passage states:

The first local communication link 111 is controlled using a first local management interface (LMI) between the first node 110 and the first local router 112. Similarly, the second local communication link 131 is controlled using a second local management interface (LMI) between the second node 130 and the second local router 132. Communication occurs in the frame relay network 120 using a set of communication links (not shown) between the first local router 112 and the second local router 132; note that the first local router 112 and the second local router 132

may happen to be the same device, or may be coupled by a large number of separate devices and separate communication links.

Natarajan, column 2, lines 60-67. There is nothing in these passages that indicates *how* a DLCI would be assigned *as an address for a MDBS*, much less the use of an LMI frame for such purposes, as these passages merely indicate that a DLCI is established. For at least this reason, Applicants submit that Claim 9 is separately patentable over Hossain and Natarajan. At least similar reasons support the separate patentability of Claim 24.

Related reasons support the separate patentability of new Claims 30-33. New Claim 30 recites "wherein the MDBS uses the DLCI in the frame as its frame relay address *without requesting a frame relay address.*" As noted above, Hossain describes a NS layer addressing scheme in which a new NSE obtains an address by requesting an address from the SGSN. In contrast, as described in the present application:

The present invention arises from the realization that, because of the dedicated connection between the node and the base station, transmissions to the base station on the link between the packet data network and the base station can typically be limited to packets intended for the base station. Accordingly, it is possible to achieve "plug and play" configuration of the base station by using address information included in packets transmitted by the connecting node, e.g., the DLCI automatically included in a Local Management Interface (LMI) or other frame transmitted by the frame relay node connected to the base station.

Present Application, p. 6, lines 1-8. As further explained with reference to FIG. 4:

A frame is transmitted from a frame relay node to an MDBS (Block 410). For example, the transmitted frame may be a Local Management Interface (LMI) frame that is periodically transmitted by the frame relay node to monitor the status of a Permanent Virtual Circuit (PVC) between the frame relay node and the MDBS. The frame is received at the MDBS (Block 420), and the frame relay interface of the MDBS responsively configures itself to treat the DLCI in the received frame as its frame relay address (Block 430). For example, the MDBS may reboot and configure a software process implementing a frame relay stack based on the received DLCI.

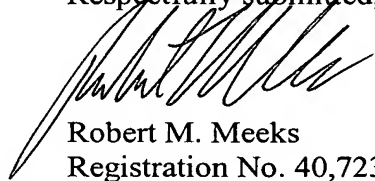
Present Application, p. 6, lines 15-23. In other words, unlike the Network Services layer addressing described in Hossain, the MDBS does not need to request an address because it takes advantage of a periodically transmitted frame relay message. Such operations are also clearly not disclosed or suggested in Natarajan. For at least these reasons, Applicants submit that new Claim 30 is separately patentable over these references, whether taken alone or in

combination. Applicants further submit that new Claims 31-33 are separately patentable for at least similar reasons.

Conclusion

As all of the claims are now in condition for allowance, Applicants respectfully request allowance of the claims and passing of the application to issue in due course. Applicants urge the Examiner to contact Applicants' undersigned representative at (919) 854-1400 to resolve any remaining formal issues.

Respectfully submitted,

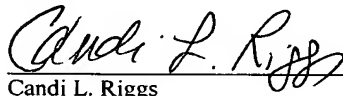


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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on February 14, 2006.



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